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Notebook
Agricultural Notes
China.
Manchuria.

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U.S. Dept. Agr.
Washington D. C.

Nov. 1 to Nov. 1930

Written up

Saturday, November 1, 1930
Peking = China.

Very cold and windy.

Left about 9 A.M. to visit Yenching University to look over the seed fair which is being held by the agricultural Department of the University. The University is about 9 miles out from Peking. Upon arriving at the college, we found that on account of yesterday's snow that the fair had been postponed until next week.

The various exhibits, however, had been set up and we were met by Mr. D. W. Chang of the

poultry department
who showed us the
agronomic exhibit. This
consisted of millet, corn,
kaoliang, cotton, and
wheat. There was an ex-
cellent display of heads
of kaoliang of many
varieties and of millet
of many varieties. There
were some very nice
looking samples of
wheat. Only one ex-
hibit of soybeans and
that of plants which
appeared identical
with the Peking variety.
Mr. Yih of the University
advised that the college
just began some
soybean work the

present year and therefore have no results.

In the vegetable section there were many varieties of sweet potatoes, Chinese cabbage and squash.

Mr. Chang of the poultry advised that they were doing some work in feeding soybeans to poultry. They have had not had good results in getting chickens to eat the cracked beans. They use ground soybeans in a mash about 20 pounds of beans to a hundred pounds of the mash.

In the afternoon worked on & finished Oct. Expense account.

On the evening we were guests of Dr. Yanci Kin at the Annual Dinner of the American College Club of North China, thirty seven Cornell men were present. I met Dr. Ernest Tso of the Peking Medical College who is conducting experiments with feeding milk & oatmeal to babies in the nursery of the P. M. C. He has a special system with formulas for feeding babies and says most excellent results are obtained.

Mr. [illegible] the teaching University biology

Department advised that the makings of Roquefort cheese such as Roquefort cheese and soy sauce differed very much from and South China.

Sunday - November 2, 1930
Peking = China.

Cold and windy. We left about 9.30 A.M. for the Summer Palace Grounds. We found that the buildings were all closed up. They were closed when the Manchurian troops came in and took possession of Peking. The buildings were closed and sealed to check up the treasures. The buildings are in much need of repair. In the grounds one may find all sorts of plants. In several places there were two kinds of sweet clover - a yellow flowered and a white flowered form.

Only one form of Lespedeza was noted - a low growing woody form with red purple more or less scattered like L. bicolor.

After going through the summer palace grounds we visited the Jade fountain which obtains its name from the bottom of the lake - greenish blue. Two of the priests of the nearby temple gave us glasses of water to drink from the place where the water comes from the rocks.

Nearby on a hillside was a Dagoba erected several hundred years ago in honor of a Lama priest.

We then went to an old Buddhist temple

in the foothills of the Western Hills. The temple was more than 900 years old and on Building contained a large sleeping Buddha.

We returned to Pekin by another road and saw some very interesting farming country.

Monday - November 3, 192
Peking - China.

Very cold and windy. In the morning we went to the Peking Union Medical College where we met Dr. Ernest Tso (Chu) who is doing work with soybean milk in feeding babies. Dr. Tso has about twenty babies to whom he is feeding soybean milk. This milk is made in his laboratory by grinding yellow beans and making same as with Tofu. After the milk is made it is mixed with starch, sugar (cane), calcium salts (chloride) and then

Boiled in a double boiler in a steam bath. The milk is fed to babies ranging from birth until they are several months, although not considered of equal value to breast milk and cow's milk, it comes next in value to these two milks.

All of the babies make excellent gains on soy bean milk and is considered of great value in the Orient where cow's milk is hard to obtain and quite costly. It would cost about $15 mex. to feed

a baby 1 month on
cow's milk in Peking
and only about ½ as much
to feed soy bean milk
one month.

In many cases the
feeding of cow's milk
causes many stools
per day whereas the
soy bean milk has been
found to reduce the
number.

Dr. Tso had a can of
soy bean milk made by
a company in Boston
and called Sobee. He
had also another
milk manufactured
by a firm in Hamilton
Canada called "Vi

Jess were taken to the nursery room and shown several orphans with fed babies. All looked strong, healthy and happy.

After lunch we went to one of the 300 year old soy sauce factories to take some more pictures and still pictures of some steps in the Chinese methods of making soy sauce. Some of the jars holding the soy sauce and soy sauce mash are 300 years old. This factory was established 300 years ago and the same methods of preparing

soy sauce have been
the same during this
period. The mash and
sauce as well as the
vegetables cured in
wheat and soy mash are
cured in open jars in
the open yard. The jars
for the most part are
open and collect all
sorts of dust, dirt, leaves
etc. The method of curing
is called sun curing.

In some of the rather
small southern jars
turnips were cured in
wheat mold mash and
cured for two years. When
dried the jars are turned
upside down. Some of these
had cured unfriendly
and the turnips were

being taken out and were quite black. Also numerous white maggots were crawling over the turnips.

We went to a yard where persimmons were given the hot water treatment to take out the astringency. The persimmons are placed in jars - holding about 800 fruits - with the jar about 1/2 full of water. The fruits are placed in the jars about 6 A.M. and a fire built and burned for about one hour. The water is never boiled, as more fire is

again placed under the kettles for one hour and at night the fire is again placed under for an hour. The fruit is left until 6 A.M. The next morning when the fruits are sold. The three heat treatments are given only with the first fruits of the season. At this time (Nov.) the fruits are only given fires twice - at morning and night. for about ten days (Nov. 10-15) when it begins to freeze hard, the hot water treatment is discontinued for the frozen persimmons.

Tuesday - November 4, 1930.
Peking - China.

Tunghsien - China (A.M.)

Left about 9.15 A.M. for Tung Hsien to inspect an agricultural fair being held by a mission school. Upon arriving at the compound we were met by Mr. Hunter - graduate of the University of Ill. - who is agricultural advisor of the school and in charge of the fair. The exhibits were in a series of rooms of a Chinese school.

In the first room the school work of the children was on exhibit and consisted

writing, drawings, paintings, and embroidery work. In another room there was an exhibit of embroidery work of the women.

The exhibit of agr. products was very poor. There was not a great variety of products. The city police had gone out in the country and brought in several products. There were a few samples of soy beans, Chinese cabbage, squash, heading heads, millet corn. Two varieties of sorgum were seen and had excellent ears. This missing school is not doing any

work toward the improvement of the system. The main work is being done with Rosling and millet. Mr. Hunter is doing considerable work with poultry. Full blooded males have been brought from America and crossed with the native stock. This cross is said to produce Ex-layers. Full blooded stock from America is very susceptible to diseases. The Chinese are very fond of the Cochin type and this breed is very susceptible to disease. The Bantam is the least susceptible

to disease and sells very cheap. They sell for about 15 cents Mex at the markets which is about 5 cents in our money.

after visiting the shops we visited several grain stores and looked over the stocks found which were as follows:

Soy beans (green, yellow, black)
Cowpeas (white, red, Whippoorwill)
Adsuki beans (grey)
Broad beans (light buff)
Field Peas.
Garden beans (white)
Kaoliang.
Wheat.
Millet.

Perilla.

In this we find a great variety of soy beans, one yellow variety, two varieties of green and one flat black very much like the Peking.

Wednesday - Nov. 5, 1930.
Peking = China.

~~Mild and clear.~~

Dr. Ernest Tso.
Peking Union Med College
Peking, China

Amer. Soybean Assoc. Rpt.

Chinese sauce - ~~good quality~~
sells for 15 cts (mex) per
cattie. South china makes
best quality sauce - sweeter -
and sells 30 cents (M) per quart.

Sobee - Mead's Sobee
Mead Johnson & Co.
Evansville, Ind.

Soy flour	67.5
Barley Flour	9.5
Alkali oil	19.
Sodium Chloride	1.3.
Calcium Carbonate	2.7

Can dinner to Dr. Tso -

On the morning we went to visit Dr. Ernest Tso of the Peking Union Medical College with regard to soy bean milk. Dr. Tso is doing considerable work in the feeding of babies with soy bean milk - made from a formula of his own. Yellow soy beans are used being partially ground at first to remove the seed coats. The beans are then soaked over night in a refrigerator in 8 times their weight of water. The beans with the water are then put through a metal stone mill to obtain a thin paste

which is filtered thru a fine mesh horse-hair sieve. The yellowish-white milky filtrate is the soybean milk. 500 gms. of beans in 4 liters of water yield on the average 3 liters of soybean milk. The bean milk is boiled in a double boiler for 20 minutes and supplemented with 0.1 per cent of NaCl.

The average composition of 100 cc. of boiled bean milk is as follows:

Protein	4.4%
Fat	1.8%
Carbohydrate	1.5%
Calcium	0.018%
Phosphorus	0.057%
Ash (excluding added NaCl)	0.41%

The scarcity of animal proteins in the Orient has led the Division of Pediatrics, P. U. M. C. to search for an inexpensive substitute for cow's milk in infant feeding and has led to experiments with soybean milk. This vegetable milk is a native food used in certain parts of China as a morning beverage but it is little used as part of the diet of the Chinese children. Soybean milk is 5 to 10 times cheaper than cow's milk. In Tientsin and southern China soybean is used quite extensively and it is

not used in Baking.

Experiments at the P.K.M.C. have demonstrated that infants grow in their first months of life thrive on a diet free from animal milk and the basic constituent of this diet is an artificial milk prepared from the soybean. The experiments show that, properly supplemented, soybean milks can be made more or less comparable to cow's milk in nutritive properties.

The milks (soybean) prepared in the laboratory of Dr. Tso, is made in the laboratory six times

a week. When boiled the necessary supplements for a complete food have been added. This milk has a very good taste. It seems that this milk could be dried and put in powder form.

We were taken out to a Chinese lunch room said to be the oldest one in Peking (about 300 years old). Dr. Tso had ordered a lunch in which there were to be a number of soy bean dishes.

1. Sliced old eggs.
2. Blood soup.
3. Tofu in meat jelly
4. Smoked fish
5. Fish fried in fat.

6. Minced chicken beaten in the white of eggs & cooked in deep fat.
7. Bean curd in thin slices cooked in chicken mixture.
8. Bean curd fried in deep fat and covered with sauce.

There were numerous other soups and dishes.

After lunch we went back to the office of Dr. Tso. He advised that the Chinese do not use soy beans as beans for food but use a great variety of bean curd dishes, soy sauce and bean jam or paste. Soy sauce is used very extensively by all classes of Chinese, the sauce being used in cooking

all kinds of dishes. The
poorer classes of Chinese
use a sauce of cheap
quality being less than
half of the good grades
of sauce. The best sauce
is produced in Japan
being much better than
any produced in China.
In some of the Chinese
cities a chemical
soy sauce is produced
which is very cheap and
is used largely by
the town classes.

Thursday - November 6. 1930.

Clear and cold. Arose about 5.30 A.M. had breakfast at 6.15 and loaded all kit about 6.30 A.M. with Peter Yim for Nankow where we arrived about 9.30 A.M. Passing through the farming sections, several different methods of wheat planting were noticed. Some fields had single rows 4 feet apart while other fields had two rows 12 in. apart and such two rows was 4 feet apart. Then a few fields the rows were about 15 in. apart. Almost all the

seed cleaning and threshing had been done. We had tea at the Nankow Hotel and went to the Ry. Sta. Vendors had a great abundance of excellent looking persimmons on stands and in baskets. A basket of 20 sold for 50 cents Mex. We took a train at 10 A.M. for where we can go to the great wall. The train was a mixed one and had no regular passenger coach. Many of the passengers crowded on loaded box cars. We arrived at about 11. We got donkies

and went to the
Great Wall. The Chinese
were selling every sort
of thing - arrow heads,
fossil rocks, coins, beads
and Mongolian curios.
After viewing the wall
and walking on it
ways we took the train
for Nankow and then
took an auto for the
Ming Tombs. There
are thirteen of these
but we only visited
the one of Yung Loh
built about 1425.

Friday-November 7, 1930.
Tangshan & Shiang Tang.
China.

Cool clear. We left by auto at 7.40 A.M. for Tangshan where we obtained mules and rode to the Chinese village Shiang Tang. It took us about two hours by donkey. There are about 20 storage yards for persimmons in this village. The beds are on raised ridges of dirt about 15-18 in. high. Over the ridges kaoliang mats are spread and the persimmons are piled on these mats to a depth of about 30 in.

Each kid has from 20000 - 30000 persimmons. Each storage yard has about 800,000 fruits. Thus giving 16,000,000 persimmons in this village alone. Straw, grass, and corn stalks are placed over the persimmons after freezing. At the present time mats are placed over the persimmons. The vendors from Peking and the villages come to these storage yards for the fruits. The fruit is brought from the orchards in baskets or dumbries.

Saturday - November 8, 1930.
Peking - China.

Cool and clear in the morning went to the American Legation to have expense account sworn to. Met Mr. Ellis who talked on China affairs and gave the names of the following books on China to read

then went to the Nat. City bank of N. Y. To obtain money. The exchange rate was 172 for gold Yen.

Wrote up an outline for taking notes on the open cold storage of persimmons for Dorsett.

after lunch we went with Peter Lin to visit some brass stores. all kinds of brass products were on hand and very much cheaper than anything we have seen in Chosen. We also visited the Bazaar. In one section there were crowds around story tellers, magicians & jugglers.

At night we went to Dr. Yamei Kins where we were served a soybean dinner. Soybean curd was fixed in all sorts of ways. There was mock ham, mock fish, mock chicken, and mock brains. The mock ham was the curd that had been pressed hard and fried in soysauce in which some seasonings had been boiled. This gave the curd an appearance of smoked ham and not very unlike the flavor of ham.

The mock brains were small pieces of fresh ham curd in a dish of mixed vegetables in a thick gravy.

The mock chicken was

pieces of yuba cooked in thick gravy with pieces of various kinds of vegetables. Yuba was also served in a few other dishes in which there was vegetables in gravy.

Fresh bean curd and bean curd fried in soy sauce can be served in all kinds of dishes with vegetables in gravy as can also "yuba."

The best bean curd is made in South China being of a finer grain.

The Buddhists use bean curd in place of meats and use it all sorts of ways in making substitutes for fish, meats, and poultry.

Sunday - November 9, 1930.
En route - Peking - Mukden. China.

Cold and clear.
Left Peking, China — 8.25 A.M.
Rly. fare 1st Cl. - Peking Mukden -
Transfer Hand Luggage -
" " Trunks -
Berth - upper Peking - Mukden -
Berth - lower " - " -

We left on the morning train for Mukden, along the way. There was nothing much to note in agr. lines as all crops had been harvested, a few fields of cotton were being picked. Occasionally one would see the clearing of grain and some plowing. Winter wheat was noted extensively along the line.

various ways - The most
common method being
in about 15 in. rows.

Monday - November 10. 1920.
Mukden - Dairen = Manchuria.

Cold and clear.

Arr. Mukden	6.00 A.M.
Left "	1.26 P.M.
Arr. Dairen	8. P.M.

Ry (2) Mukden - Dairen
Expr. " - "
Checking Baggage - Mukden -
Porter - Mukden -
" Dairen
Trunk Transfer - Mukden
Porter - Dairen
Taxi - Dairen.

On the Express at Mukden we met Mr. Kobayakawa director of the Sanko Company at Kaiyuan who was on his way to Dairen to attend a series of lectures on industrial economy. He

advised that. The movement in soy beans is rather slow this fall. This is due to the low price of beans. Last year at this time beans were sold at one yen per sack of 10 boken. At this time beans are selling for about 2.50 yen per sack. Very few beans are being transported at the present time. All soy beans have been threshed and cleaned but are being held in the farmers hands for better prices.

We visited the walled city of Mukden and visited several Chinese

stores and found prices much higher than at Peking. On the streets were seen wheelbarrows on which were flat boards. Meats of different kinds and cuts were on the boards. There were small trading meat markets. Several grain stores were noted and it may be worth while later to visit some of these to obtain samples of beans.

Produce & Currency

Produce Further Improving

At the report of stiffer tone prevailing on the Harbin market, Future Beans on the local market further rose by 7-13 sen. Spots also went up by 12 sen.

Both Spot and Future Cake were also rated 2.5 sen and 3 sen higher respectively through active bullish sentiment. Cake alone stood somehow unheeded.

17 mills were at work locally today, producing 33,000 pieces of Cake.

Silver Left Stationary

Local Silver stood almost at a standstill this morning, closing at G.¥57.40 for Nov. 13 delivery and G.¥57.45 for Nov. 28.

Business kept fairly brisk.

Bar Silver, London, fell by a point to 16-11/16d.

PRODUCE

Nov. 10, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 70 carloads)		
Silver Yen	5.78	5.93
BEAN CAKE (Business : 39,000 pieces)		
Silver Yen	1.760	1.780
BEAN OIL (Business : 1,000 cases)		
Silver Yen	18.40	18.40

Future Deals

BEANS (Business : 621 carloads)		
Nov. delivery	5.86	5.89
Dec. ,, ...	5.86	5.94
Jan. ,, ...	5.95	6.01
Feb. ,, ...	5.98	6.04
Mar. ,, ...	6.00	6,05
BEAN CAKE (Business : 44,000 pieces)		
Nov. 14 delivery ...	1.780	1.780
Dec. 14 ,, ...	1.800	1.840
Jan. 14 ,, ...	1.830	1.870
Feb. 14 ,, ...	1.860	1.880
Mar. 14 ,, ...	5,000 cases)	
BEAN OIL (Business :	18.40	18.40
Nov. 14 delivery ...	18.10	18.10
Dec. 14 ,, ...	18.00	18.00
Jan. 14 ,, ...	17.90	18.00
Feb. 14 ,, ...		
Mar. 14 ,, ...		

Tuesday: November 11, 1930
Dairen. Manchuria.

Cold - Blizzard Woman
awoke in the morning there
was a blizzard. Went to the
office and worked on
motion picture films.
The scenes taken inside
at Peking did not turn
out good but all outside
scenes were very good.
On telephoning Mr. Ohara
he advised that he had
about 20 samples of seed
for me but as yet had
seed of no ornamentals.
We were advised by the
Military Police Dept. that
the permits for still and
movie pictures had not
yet been received due to

the fact that we were training and they could not come while we were not in the city.

Dairen Trade for September Last

Exports

The export trade for the port of Dairen for September last totalled 265,034 tons, being a decrease by 190,162 tons, as compared with 455,196 tons for the same month of 1929. Of the exports, Staple Produce shipped to different points is given under, according to the returns prepared by the S.M. Railway Wharf Office:—

To	Beans kilo tons	B. Oil kilo tons	B. Cake kilo tons
Japan	21,130	—	8,637
Chosen	—	—	3
China	4,126	1,376	586
South Seas ...	3,847	—	—
Europe	46,857	5,055	435
U. S. A.	—	—	2,393
Total	75,959	6,431	12,054

Import-

Produce & Currency

PRODUCE IRREGULAR

After yesterday afternoon's heavy collapse, Beans were quoted still weaker, though nominally, this morning. Cake rose by 1.5-3 sen. Oil kept stationary.

18 mills were at work, putting out 58,000 pieces of Cake to-day locally.

SILVER NORMAL

It was devoid of any interest worth noting.

Beginning at G.¥57.20, it closed the same. Turnovers, however, were fairly large.

Bar Silver, London, stood the same at 16-11/16d.

Shanghai Gold Bar, opening at Tls. 584.9, closed at Tls. 584.2.

PRODUCE

Nov. 11, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 40 carloads)		
Silver Yen	6.02	5.98
BEAN CAKE (Business : 23,000 pieces)		
Silver Yen	1.805	1.805
BEAN OIL (Business : 1,000 cases)		
Silver Yen	18.45	18.40

Future Deals

BEANS (Business : 366 carloads)		
Nov. delivery	5.93	5.95
Dec. ,, ...	6.00	6.01
Jan. ,, ...	6.08	6.07
Feb. ,, ...	6.08	6.10
Mar. ,, ...	6.13	6.13
BEAN CAKE (Business : 120,000 pieces)		
Nov. 14 delivery ...		
Dec. 14 ,, ...		
Jan. 14 ,, ...	1.830	1.880
Feb. 14 ,, ...	1.900	1.950
Mar. 14 ,, ...	1.945	1.960
BEAN OIL (Business : 1,000 cases)		
Nov. 14 delivery ...	18.35	18.35
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...		
Mar. 14 ,, ...	18.00	18.00

Wednesday - November 12, 1930

Denver - Manchuria

Cool and clear

Produce & Currency

Produce Sluggish

Future Beans sagged further by 3-5 sen chiefly through the speculative sentiment. Cake, too, declined by 2.5-3.5 sen in sympathy with Beans. No business was done in Future Oil.

The local operating mills increased to 19 to-day, with the total production of 38,000 pieces.

Silver Sags

Partly due to the drop of Bar Silver, London, by a point to 16 5/8d., etc. local Silver was quoted somewhat weaker, closing at G.¥56.80. Turnovers, however, were comparatively big, amounting to S.¥5,200,000.

Shanghai Gold Bar, opening at Tls. 588.9, closed at Tls. 590.7.

PRODUCE

Nov. 12, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 40 carloads)		
Silver Yen	5.97	5.93
BEAN CAKE (Business : 15,000 pieces)		
Silver Yen	1.810	1.785
BEAN OIL (Business : 6,000 cases)		
Silver Yen	18.45	18.50

Future Deals

BEANS (Business : 340 carloads)		
Nov. delivery	5.92	5.90
Dec. ,, ...	5.90	5.94
Jan. ,, ...	5.94	5.97
Feb. ,, ...	5.99	6.00
Mar. ,, ...	6.03	6.03
BEAN CAKE (Business : 65,000 pieces)		
Nov. 14 delivery ...		
Dec. 14 ,, ...		
Jan. 14 ,, ...	1.835	1.835
Feb. 14 ,, ...	1.900	1.885
Mar. 14 ,, ...	1.930	1.910
BEAN OIL (Business :		
Nov. 14 delivery ...		
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...		
Mar. 14 ,, ...		

Odourless Cod Oil Bread

Made at Central Laboratory, Dairen

Mr. Kato, of the Central Laboratory, Dairen, has succeeded in making odourless cod oil bread.

In making the new kind of bread, lecichine obtained as a by-product in the new process of extracting oil, as invented at the Laboratory, is mixed with cod oil and this mixture is mixed with the dough. It is the lecichine that renders the cod oil perfectly odourless.

The lecichine contains vitamin B and phospholic acid required for strengthening the muscles, and has a high nutritive value. In addition, bean flour and pulverized fish-bones are also mixed to enhance the nutritive value of the bread, besides making it more palatable.

By the existing 5 ton oil-extracting appliances 3% lecichine is obtainable which will suffice to meet the local demands.

Some time next week, which will probably be set apart for Children's Week under the auspices of the S.M.R. Co. Land Office, the new kind of bread will be offered for sale at the Railway Club.

Dr. Yendo, Superintendent of the new Sanatorium himself, is stressing upon the necessity to make the consumptives in early stages take cod oil as a means of food cure.

The production of the odourless cod oil bread will be welcomed by people in feeble health at large.

On the morning we went to the office of the Manchuria Norman Shokai where we met Mr. M. Otora the manager. Here for he has 21 samples of legume seed which he had collected in Manchuria

1. Astragalus adsurgens (6457) -
2. Azukia pendula (6458) -
3. Cassia mimiosoides (6453) -
4. Hedysarum arbiricum (6468) -
5. Helianthus annuus (6459) -
6. Indigofera kirilowii (6466) -
7. Lathyrus Davidii (6467) -
8. Lespedeza cyrtobotrya (6451) -
9. L. cuneata (6450) -
10. L. medicaginoides (6448) -
11. L. striata var. stipulacea (6464) -
12. L. tomentosa (6454) -
13. L. trichocarpa (6463) -

14. L. virgata (6461)
15. Melilotus indicus (6456) -
16. M. suaveolens (6449) -

17. Pinus koriensis (6455) -
18. Soja usuriensis (6446) -
19. Trifolium lupinaster (6447)
20. Vicia amoena var. typica (6460)
21. V. amoena var. oblongifolia (6462)
22. V. cracca (6452) -
23. V. unijuga (6465) -

As this was the first time he had collected such wild legumes and he could set no price and presented the seed of this collection to the Dept. On the next season he will list the various legumes in the Catalog. Some of the ornamentals ordered by Mr. Dorsett have as well come in

but they are expected during the next two months. We had rather an extended visit with Mr. Chase concerning seed of wild plants, and he will be in a better position next year to make a larger collection and extending over a much wider area.

On our way to the office we stopped at some Chinese stores to see if the Chinese soybean coffee was yet on the market. We found a small grocery and it is sold under the name "

It is made of roasted soybean flour, walnuts, pine nuts, sesame seed, squash seed & Kudzu flour. Samples were obtained for sending to Washington for the soybean exhibit.

After lunch the Military Police Office of the Fortified Zone office was visited concerning the permits for taking still and movie pictures. The still picture permit was given but the movie permit was not ready as they desired information concerning the different things to be taken.

Thursday. Nov. 13. 1930.

Dairen. Manchuria.

Cold and clear.

Soybean meal selling at present Time at ¥ 3.36 per 133 1/3 lbs. which equals $1.26 per hundred lbs. Freight rate Dairen to Pacific coast ports is $ 2-2.50 per long Ton.

~~Soybean oil cake~~ meals

On the morning received a note from Mr. George N. Vitt, District Representative of the Caterpillar Tractor Co. of San Leandro, Calif. asking for an appointment to talk over soybeans in Manchuria. Mr. Vitt who is a Russian and has had several years experience in Manchuria seems to

think that level culti-
vation of crops can be
carried on as well as
the ridged cultivation.
He has made arrangements
with the S.M.Ry. at
their Kungchuling Farm.
Sta. to carry on a series
of experiments for
level cultivation with
all machinery. He is
of the opinion that with
deep plowing and sub-
soiling better yields
can be obtained with
level cultivation and
with the use of all
machinery cheaper pro-
duction than with
Coolie labor.
Seed was written
up that was obtained

from Mr. Ohara and several packages thrashed and cleaned.

after lunch we went to the office of Mr. Takemura S.M.R. Ry. He gave us information concerning prevailing prices for steamers and shipments to foreign countries.

Local Bean Mills at Work

Total Outputs for First Decade: 265,000 Pieces

While bean milling industry still remains unworkable financially, many of the local mills have resumed operation. At the beginning of the current month, there were only 12 mills at work, but the number increased to 19 on the 12th, yesterday, comprising 15 near the Wharves and the other 4 Shakako way.

The total production for the first decade of the month was 265,000 pieces.

However, demand for Bean Cake from South China way continuing dormant, the stock under storage on the Wharves is on the increase.

There were 228,000 pieces on the Wharves yesterday, being 40,000 pieces more than on the preceding day.

As the stock under storage increases, the market tone will be weakened unavoidably.

What has made these mills restart work in the present impossible market condition, is ascribed partly to their wish to preserve their standings with their banks, and partly to the return of their Shantung coolies, who have got to be fed, from their home visits.

Produce & Currency

Produce Stationary

The Produce market was featureless with quotations remaining practically the same as yesterday afternoon, except for Beans that fluctuated within only narrow range.

Turnovers were meagre all-round.

18 local mills kept operating, putting out 38,000 pieces of Cake to-day.

Silver Quiet

No appreciable change was recorded on the local Silver market to-day partly through the utter absence of speculative incentive.

Beginning at G.¥56.95, it closed at G.¥57.00

Bar Silver, London, fell by a point to 16-9/16d.

Shanghai Gold Bar, opening at Tls. 590, closed at Tls. 588.9.

PRODUCE

Nov. 13, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 70 carloads)		
Silver Yen	5.82	5.85
BEAN CAKE (Business : 25,000 pieces)		
Silver Yen	1.750	1.770
BEAN OIL (Business : 1,500 cases)		
Silver Yen	18.40	18.40

Future Deals

BEANS (Business : 263 carloads)		
Nov. delivery	5.84	5.85
Dec. ,, ...	5.80	5.84
Jan. ,, ...	5.82	5.85
Feb. ,, ...	5.87	5.94
Mar. ,, ...	5.92	5.97
BEAN CAKE (Business : 40,000 pieces)		
Nov. 14 delivery ...	1.760	1.760
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...	1.835	1.850
Mar. 14 ,, ...	1.870	1.880
BEAN OIL (Business : 3,000 cases)		
Nov. 14 delivery ...	18.15	18.20
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...		
Mar. 14 ,, ...		

BEAN CAKE FOR CATTLE-FEED

By Dr. U. SUZUKI

Professor of the Agricultural College
Tokyo Imperial University

The following is a substance of a lecture given by Dr. U. Suzuki (Professor of the College of Agriculture of the Imperial University, Tokyo) at the Oriental Commercial Intelligence Office, Tokyo, closely associated with the S.M.R. Co., on Sept. 12 last. The savants on the food-stuff question in Tokyo attended including specialists of the Agriculture & Forestry Ministry, the Chiba Live Stock Experimental Farm, the Nishigahara Agriculture Experiment Station, the Ohmiya Poultry Farm, the Colonial Ministry, the Agricultural College of the Imperial University, Tokyo, etc.

Ed. M. D. N.

The utilization of Bean Cake for cattle feed has an important bearing upon the longed for revival of the bean milling industry in Manchuria.

It was 3 or 4 years ago that I was consulted by the S.M.R. Co. as to if there was any way open to revive the bean milling industry in Manchuria that had been keeping depressed.

I pondered over the subject, but no brilliant idea occurred to me for turning the tide of the extensive industry in Manchuria in an opposite direction.

The first thought that flashed across my mind was to feed cattle on part of Bean Cake, and to use the droppings for manure.

The second idea that suggested itself to me was that, after removing all fatty substance from Bean Cake by the alcohol extraction method, it might be pulverized for food purposes.

Thirdly, I hit upon using Bean Cake as a substitute for Beans in the manufacture of soy.

I then set myself to think out what other likely uses Beans and Bean Cake might be put into on an industrial scale, but my pains on this score was without reward.

For instance, glutamic acid which forms the principal ingredient of "Ajinomoto", the most popular Japanese appetizer, can be obtained by separating the albumen in Beans, but supposing that all the "Ajinomoto" used in Japan at present were manufactured, only 1% of the Bean production of Manchuria would quite do.

We have long known that Bean Cake is good for sattle-feed, but in Japan proper, it has been put to such use only nominally.

Then, I thought of making clear of the advantages and disadvantages possessed by Bean Cake as cattle-feed, so as to build a scientific basis to work upon.

I requested the Agriculture Experiment Station, Aichi Prefecture, and the Live-Stock Experiment Station, Chiba Prefecture, to start experiments in these directions.

This request of mine was complied with great enthusiasm at each Station, and valuable discoveries have resulted.

Then, I set myself to look into the ingredients of Beans.

For instance, I wished to learn what drawbacks Bean Oil has as material for making oleomargarine. Again, by resorting to the alcohol extraction process, a large amount of lecichine, together with a large amount of Bean Oil can be had, but what are the real property and uses of each? Next, Beans contain a sort of saponin which, if dissolved in water, will produce much foam, and what are its chemical properties?

What can be the chemical properties of Beans and what kinds of vitamin and how much of them are contained in Beans and Bean Cake must be thoroughly inquired into.

These subjects lie under a systematic and concentrated study at the S.M.R. Co. Central Laboratory, Dairen, and also at different institutions in Japan proper, and I am looking forward to some satisfactory outcome of these researches.

The most important ingredient of Beans is albumen which has a comparatively high nutritive value. This point has been studied out by Dr. Osborne of the United States and others. From our own animal tests conducted over long years, the albumen of Beans is proved as valuable as the albumen of rice.

Next, we have conducted experiments to ascertain the vitamin contents.

In Bean Oil expressed from Beans, more or less Vitamins A and B are found contained. By mixing Bean Oil to the amount of 10% with cattle feed devoid of Vitamins A and D, the same feed will help the growth of animals, though not quite to a satisfactory extent.

(To be Continued)

Friday - November 14, 1913.
Dairen - Manchuria.

Produce & Currency

Produce Market Holding Off

At the Report of Attempt on Premier's Life

Local operators, as a whole, were keeping off this morning, looking out for some wild fluctuation of local Silver at the news of the attempt on Premier Hamaguchi's life. Consequently Produce quotations stood almost unaltered.

19 local mills were at work today, putting out 35,000 pieces.

Silver Soars

Local Silver, probably largely through the report of the would-be-assassination case, rose abruptly by more than G.¥1 over yesterday afternoon.

Beginning at G.¥58.50, it closed at G.¥58.15.

Bar Silver, London, rose by 2 points to 16-11/16d.

Gold Bar, Shanghai, opening at Tls. 587.5, closed at Tls. 583.3.

PRODUCE

Nov. 14, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 60 carloads)		
Silver Yen	5,80	5,85
BEAN CAKE (Business : 25,000 pieces)		
Silver Yen	1.740	1.740
BEAN OIL (Business : 1,200 cases)		
Silver Yen	18.40	18.40

Future Deals

BEANS (Business : 275 carloads)		
Nov. delivery	5,84	5.86
Dec. ,, ...	5.86	5,87
Jan. ,, ...	5.84	5,90
Feb. ,, ...	5.93	5,94
Mar. ,, ...	5.92	5.97
BEAN CAKE (Business : 88,000 pieces)		
Nov. 14 delivery ...		
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...	1,825	1,850
Mar. 14 ,, ...	1,850	1.870
BEAN OIL (Business : 500 cases)		
Nov. 14 delivery ...		
Dec. 14 ,, ...	18.05	18.05
Jan. 14 ,, ...		
Feb. 14 ,, ...		
Mar. 14 ,, ...		

CURRENCIES

Spot Deals

Raw Cotton Crop in Kwantung Leased Territory

This Year's Crop Forecast about 1,140,000 Kin

At the end of October, according to the returns of the Manchuria Cotton Growers' Association, the total cotton crop in Kwantung Leased Territory this year was forecast to be 1,140,000 kin.

The Raw Cotton Co., as the custom is each year, started to purchase raw cotton from Oct. 20. The total purchases up to the 6th inst. reached about 200,000 kin.

Pulantien is the market in the Leased Territory where the largest stock of raw cotton was received so far this year. On the 6th inst., 38,000 kin of raw cotton arrived at the railway station.

Cool and clear.

On the morning we went to the Dairen wharves to collect samples of seed and to see storage of beans and cake. We found the warehouses along the wharves well filled with beans. A Japanese ship and a German ship were being loaded. Most of the beans were of the new crop from the Harbin and Changchun districts. Several of the warehouses were visited and collected 21 samples all of which were mixed varieties.

The oil cake warehouses were also visited and there are now being

well filled. The yards about the wharves show great beau activity though but few beans are in outside storage and no cake.

After returning from the wharves, the bean samples were written up. Sufficient seed with products was checked up for two parcel packages - Nos. 229 and 230.

Saturday - November 15, 1930.
Dairen, Manchuria.

Produce & Currency

PRODUCE PLACID

Future Beans moved up by 4-7 sen, and Spots too rose by 6 sen. Cake was also quoted 1-1.5 sen higher. Oil remained unchanged. Business kept rather inactive all-round. 16 mills were at work today locally, putting out 61,000 pieces of Cake.

SILVER QUIET

Market got restored to its normal order this morning after yesterday's sharp appreciation.

Beginning at G.¥58.10, it closed at G.¥57.95.

Bar Silver, London, remained the same at 16-11/16d. Shanghai Gold Bar, opening at Tls. 585.5, closed at Tls. 577.

PRODUCE

Nov. 15, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 60 carloads)		
Silver Yen	5.86	5.95
BEAN CAKE (Business : 13,000 pieces)		
Silver Yen	1.770	1.790
BEAN OIL (Business : 1,600 cases)		
Silver Yen	18.50	18.50

Future Deals

BEANS (Business : 262 carloads)		
Nov. delivery	5.92	5.93
Dec. ,, ...	5.92	5.94
Jan. ,, ...	5.98	6.00
Feb. ,, ...	6.03	6.07
Mar. ,, ...	6.03	6.10
BEAN CAKE (Business : 42,000 pieces)		
Nov. 14 delivery ...		
Dec. 14 ,, ...		
Jan. 14 ,, ...		
Feb. 14 ,, ...	1.880	1.890
Mar. 14 ,, ...	1.900	1.905
Apr. 14 ,, ...	1.910	1.920
BEAN OIL (Business : 1,000 cases)		
Nov. 14 delivery ...		
Dec. 14 ,, ...	18.30	18.30
Jan. 14 ,, ...		
Feb. 14 ,, ...		
Mar. 14 ,, ...	18.00	18.00

CURRENCIES

Spot Deals

BEAN CAKE FOR CATTLE-FEED

By Dr. U. SUZUKI

Professor of the Agricultural College
Tokyo Imperial University

(Continued from Thursday)

Again, when ultra-violet ray is applied to Bean Oil, Vitamin D (the same Vitamin that cures the rickets) will get more active, but this counts but slightly. About two-thirds of Vitamins A and D. in Beans will pass into the oil expressed, leaving the remaining one-third or so in Bean Cake. Even this will gradually decrease as time goes by.

However, Vitamin B not being soluble in the oil is retained in its entirety in the Bean Cake.

Still, in rice bran and wheat bran that are used for cattle-feed in Japan proper, Vitamin B is contained in plenty. Therefore there exists little occasion to miss Vitamin B badly.

One point which should be borne in mind lies in Vitamins A and D. The poultry-formers always take care to feed their poultry on green rapes, but they will supply Vitamins A and B principally.

Of solid feeds for poultry, 5-10 % of green vegetables seem to quite suffice. In case of green vegetables being scarce, 50% of yellow maize will amply fill the need.

At the Chiba Prefectural Experiment Station, Drs. Suzuki and Hatano experimented upon white maize in which they found Vitamins A and D nearly absent. They, however, made sure that, by supplying the void with 50% of yellow maize, 20% of Bean Cake, and 30% of wheat bran, inorganic matters, and bone dust, the chickens would develop into fine fowl that will lay eggs well and will give a healthy second generation. These facts seem very interesting to me.

Next, Bean Cake contains but little inorganic matter, specially phosphoric acid, which void must be filled, for, otherwise it will hinder the growth of the young and the laying of eggs. Bone dust or super-phosphate will satisfactorily fill the need.

In Bean Cake, 6-7% of oil is left. Subjected to the alcohol extraction process, it may be made into bean powder. Or else, by resorting to the benzine extraction process, the fatty substance may be eliminated, with practically no oil left.

To feed milch-cows, the retention of more or less fat being preferable, Bean Cake is considered as the better suited for them.

At all events, with just a little attention paid in treating Bean Cake, it will make an excellent cattle-feed.

But in the Live-Stock Experiment Station in Aichi Prefecture, Japan, we could score a very flattering results in fattening hogs. Generally speaking, 20-25% Bean Cake mixed in hog-feed will do not the slightest harm.

Kaoliang, maize, millet, wheat bran, etc., imported into Japan proper from Manchuria furnish cattle-feed in the most extensive use. None of these articles contains more than 10% or so of albumen, which, in fact, is of too small a quantity when the quick growth of chicken or vigorous laying of eggs is desired, no matter in what a liberal quantity it is given.

A similar thing may be said of milch-cows and hogs. Without 20 % or so of albumen in the feed, the albumen contents are insufficient, and to make up for the shortage, in the majority of cases, fish powder is employed, and for fish powder, Bean Cake will make a good substitute.

At the Chiba Live Stock Experiment Farm, we carried out commercial tests with poultry.

Generally, a fowl wants about 1 sen worth of feed a day. If fish powder is replaced with Bean Cake, as suggested above, the daily cost will be lowered by 1.5 rin, giving the exactly same results.

This will cut no little ice with poultry-farm economy.

An economic test on a large scale is in progress at the Aichi Agriculture Experiment Station, but these tests have yielded much the same results.

In Aichi Prefecture, the poultry-raisers do not take kindly to Bean Cake as chicken-feed because of their previous experiments having come out a failure. I suppose that the failure resulted from use of Bean Cake in a random quantity, without giving thought to its ratio to the other ingredients in the feed. I should think that, if those people are taught what rational mixture with Bean Cake they should prepare for chicken-feed, they will readily be disarmed of their objection.

(To be Continued)

BANDITRY INFESTING TAONAN DISTRICT

As the new produce season is ripening, the bandits about Taonan district have been noted to operate more closely to the railway, victimizing the cart drivers, who had brought loads of produce, etc. to the market, on their way home.

On the evening of the 10th inst. a drosky-driver who had carried fares from the railway station to the town of Taonan were held up on his way home and were robbed of what cash he had on him besides the two horses.

The road from the station to the town running through the open field is a bad place for hold-ups especially after dark.

Raining and snowing until night.
Wrote my mother picture upside.
Secret service man called to pay social visit and ask how we liked our trip.

Parcel packages Nos.
229 and 230 were
packed and mailed.

Parcel Post
#229
#230
Postage
Sugitaki —— ¥50.

Sunday - November 16, 1930.
Dairen. Manchuria

Cool and clear. Wrote official correspondence. Noting my bank records.
Postage ¥ .66

Monday - November 17, 1930.
Dairen. Manchuria.

Cool and clear. In the morning after breakfast I met C. Walter Young, Far Eastern Representative of the Institute of Current World Affairs, N.Y. City. He is an authority on Manchuria and gave a card of introduction to Mr. A. Van Ess, an English man at Yingkow who has been at that place for more than 20 years.

The S.M.R. Ry. phoned us that they had a parcel of seed for us from their experiment station at Hsiungyaocheng (Kuzakuyu). We went to

Prof. Matsushima's office and had rather a lengthy talk regarding the present soybean situation in Manchuria at the present time. The soybean is selling at 5.50 yen per koku. Of this 81 sen goes for transportation and 19 sen for the commission merchant, thus leaving 4.50 yen per koku to the grower. The average cost of production to the former is 4.88 yen per koku. The present movement in beans is very slow due to the light demand from Europe. The demand for cake and meal

from the U.S. is greater than 1 year ago. The cake put out by the Harbin oil mills is of poor quality containing more or less dirt. It is said that the farmers in many sections place a shovel or two of fine dirt to each bag of seed. The cake of the Harbin mills is not inspected. Only the cake passing through the S.M.R. Wharves is inspected.

The package of seed from the Hsinmintzu station contained seed of native shrubs and trees as follows:

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Prof. Matsushima's

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after lunch we went to the motion picture laboratory where we met the director Mr. Eastman standard motion film can be purchased in 400 foot rolls and Mr. Herd to place

the film on 100 foot spools for us.

We then showed us two reels of film showing storage and shipping of soybeans at Anda, Shanyo, Harbin and Changchun. The scenes were taken in February, 1930 when the temperature was 30° below Zero. The scenes were excellent showing long lines of carts coming into the Anda storage yards along the Chinese Eastern Ry. The beans were inspected by inspectors of the S. M. Ry. as all beans that are shipped via. S. M. Ry to Dairen are inspected & graded at the

original shipping grounds. The bags brought in by the farmers are old and the beans are resacked in new bags before being shipped. The bags of beans after being bagged are placed in very large piles and [illegible] - The top covered with matting. Many tons of beans are merely dumped on the ground in piles. Other large quantities are placed in clean bins.

In north Manchuria the fall and winter are quite dry while South Manchuria has more or less rain or snow during these seasons. Thus in north

Manchuria. soy beans are in open storage with very little covering. The bags of beans are shipped along the Chinese Eastern Ry. in open cars (flat cars) to Harbin and as far as Changchun at Changchun, the beans are placed in closed box cars to protect them from weather and also Thieves.

The Sungari river freezes to a depth of six feet.

Anda is the principal storage place for soy beans between Harbin and Manchuli and is the center of a very large soy bean road

producting center.
Mango between Anda
and Harbin is the
second largest collecting
center for soybeans.
Between Harbin and
Mukden, Kangjan is
the largest soybean
collecting center.
It was noted in the
pictures that the carts
loaded with soybeans
came to Anda in
large groups and also
many of the drivers
were armed with rifles
to protect themselves
from banditts going
and coming from
the farms.
The export of staple
products of the Chinese

Imports of Dairen
for one year up to last
September is -

3,805	kilotons	soybeans
2,435	"	"	bean cake
4,599	"	"	bean oil
12,693	"	"	kaoliang
6,806	"	"	corn
528	"	"	rice
321	"	"	millet
35	"	"	mung beans
53	"	"	green beans
6	"	"	peanuts

Produce & Currency

Beans Soar

Due to a revival on the European market, Future Beans took a sharp leap by 11-14 sen this morning, and Spots, too, by 11 sen, putting forth a large volume of business. Cake stood quite-ficklish, while Oil was practically unchanged.

20 mills were at work to-day locally, producing 45,000 pieces of Cake.

Silver Normal

Tone remained quite settled this morning, closing at G.¥57.75. Turnovers were normal.

Bar Silver, London, rose by a point to 16¾d.

Shanghai Gold Bar, opening at Tls. 577.5, closed at Tls. 578.

PRODUCE

Nov. 17, 1930

Spot Deals

	Opening	Closing
BEANS (Business : 80 carloads)		
Silver Yen	5.87	6.01
BEAN CAKE (Business : 15,000 pieces)		
Silver Yen	1.770	17.85
BEAN OIL (Business : 3,500 cases)		
Silver Yen	18.40	18.50

Future Deals

(Business : 558 carloads)		
Nov. delivery	5.91	6.01
Dec. ,, ...	5.94	6.04
Jan. ,, ...	5.94	6.09
Feb. ,, ...	6.02	6.18
Mar. ,, ...	6.07	6.20
BEAN CAKE (Business : 45,000 pieces)		
Nov. 14 delivery ...		
Dec. 14 ,, ...	1.800	1.800
Jan. 14 ,, ...		
Feb. 14 ,, ...	1.865	1.650
Mar. 14 ,, ...	1.880	1,910
Apr. 14 ,, ...	1.905	1.905
BEAN OIL (Business : 8,000 cases)		
Nov. 14 delivery ...		
Dec. 14 ,, ...	18.25	18.20
Jan. 14 ,, ...	18.10	18.10
Feb. 14 ,, ...	18.05	18.00
Mar. 14 ,, ...	17.90	18.00

BEAN CAKE FOR CATTLE-FEED

By Dr. U. SUZUKI

Professor of the Agricultural College
Tokyo Imperial University

(Continued from last Saturday)

As to what an approximate amount of Bean Cake is used in Japan proper for poultry-raising, what investigations are available seem decidedly incomplete, but according to Mr. Sato of the S.M.R. Co. Agriculture Office, the number is placed at 800,000-1,000,000 pieces Bean Cake a year, valued at some ¥2,000,000 worth.

Next, as to cattle and hogs, Mr. Sato infers that altogether 3,000,-000 pieces of Bean Cake may be consumed. What is for horses is supposed to be 100,000 pieces.

The total annual Bean Cake production in Manchuria is 60,000,000 pieces, of which 70% or 42,000,000 pieces are imported into Japan proper. It will be not far from right to take about 10% of the entire imports to be used for cattle and poultry feed.

As the stock-farming industry develops in Japan proper, if the use of Bean Cake for feed is encouraged, it will not be difficult at all to raise the consumption to two- or three-fold.

Only lately, the use of all kinds of domestic outputs is being encouraged in Japan as a national cry. As to dairy products, too, home cutputs should be used as far as possible.

According to our technical tests, the Japanese dairy products compare well with the foreign imports. Especially, the fresher the dairy products are, the more vitamin is contained therein. This in itself makes one big point commending the home products to the public patronage.

Nowadays, lactogen and cream are imported into Japan to the amount of ¥3,000,000-4,000,000 annually. In order to supply this need, 10,000 additional milch-cows will quite do, on the basis that each milch-cow yielding ordinarily 10 koku of milk a year, 600 lbs. of powder milk can be obtained therefrom. 50,000-60,000 lbs. of powder milk can be had from 10,000 head of milch-cows.

There being 70,000-80,000 milch-cows at a conservative estimate in Japan proper, the acquisition of 10,000 more cattle will be an easy matter.

In these times of world-wide depression, especially when the rural districts of Japan are hit all the harder, to do something in their relief is of course of urgent importance.

To begin with, the purchased manures running up to the total value of more than ¥300,000,000 a year may be replaced as far as possible with home-made manure, so as to save the manure price.

It will be necessary to foster stock-farming or use of domestic animals in agricultural pursuits, so that the stable manure may be increased in amount.

The Agriculture & Forestry Ministry is encouraging the cultivation of green manure like clovers, lucerne, etc. I might suggest that green manure may first be given the cattle for feed, and then their droppings will make a more effective fertilizer. To my mind, sericulture in Japan will be made to feel the pressure of rayon by degrees.

In such event, stock-farming might be adopted by the farmers in place of sericulture.

Poultry-raising has developed only lately, but both meat and eggs put together already yield ¥100,-000,000, a year.

With a little stretch of effort, the annual receipts from poultry-farming may be trebled, so that eggs may be exported abroad.

The above plan, if realized, will raise the total live-stock products to ¥700,000,000-800,000,000 worth, in addition to ¥300,000,000 to ¥400,-000,000 in the form of by-products, etc. To all these, the so-called cattle power may be added, and we shall have the gross total of ¥1,-200,000,000 in value.

By applying to practical account the knowledge of dietetics, it will be made possible to rear a large herd of cattle within a comparatively narrow space of land, and on this account, it lies within range of possibility to double or even treble the existing live-stock assets of Japan.

The most important item in this enterprise is supply of feed.

For the bulk of rich feed must be depended upon the imports from Manchuria. In particular, Bean Cake makes the most valuable article, rich in albumen and cheap in price, as known to everyone.

For these reasons, it seems the most opportune to use Bean Cake for cattle-feed.

The remainder of the Professor's lecture is left out.

Ed. M. D. N.

(Concluded)

THE WANFACHENG, HARBIN, GOES UNDER

One of Leading Produce Firms & Bean Mills

The Wanfacheng, one of the most influential produce firms and bean mills in North Manchuria, capitalized on $2,000,000, has gone under with the liability of $900,000 in consequence of the sharp fall of Bean prices. This firm owes considerable debts to the Chinese banks and the effects of its insolvency will be felt extensively.

A sort of panic has seized the Harbin gentry, and the financiers are on their guard.

It is feared that dozens more of Chinese houses in North Manchuria will go off like nine pins before the old Chinese New Year.

LIVE-STOCK IN JAPAN & SOURCE OF FEED SUPPLY

By Prof. Dr. R. IWASUMI

Of Agriculture College of Tokyo Imperial University

You have heard from Dr. Suzuki a basic review of cattle-feed.

On my own part, I shall give you a rough sketch of a subject too comprehensive to be covered in a short lecture.

To begin with the existing stock-farming industry in Japan, I shall not dwell upon detail statistics, passing on directly into my theme.

In a word, Japan's stock-farming industry is exceedingly poor. This I can plainly confirm. Aside from dearth of wool, needed most sorely, it is true that, in recent years, the demand for meat has more or less increased, but still remains quite low, taking up not quite 1% of the entire food-stuffs. To be exact, it occupies only 0.7%. There is no comparison with the big consumption in the United States, in which of dry matter of food-stuffs, about 30% consists of live-stock products. Talking of albumen, 60% is derived from live-stock products.

From a standpoint of alimentation, the conclusion is generally accepted that, of food-stuffs, 30% of all the albumen should be animal matter, in order to raise the diet up to the standard, from a nutritive point of view.

In Japanese diet, outside live-stock products, a good quantity of fish is consumed. Still, all the albumen put together is not more than 15% of the entire albumen.

Under such circumstances, it is urgent to increase the live-stock of the country from a standpoint of alimentation.

Some people suppose it hardly worth while to bother their heads about what makes up less than 1% of the entire food stuffs. While it leaves room for discussion that the ingredient contained in the smallest quantity does not necessarily control our diet problem, on the other hand, the smallest contents may be called the most precious, and so the question of live-stock that forms an insignificant part of Japanese diet has been raised up to a popular issue.

Apart from importance sa an article of diet, the increase of domestic animals is desirable and profitable also from a standpoint of agricultural economy.

There may be various ways to relieve the financial distress of the Japanese farming classes.

That it is at least one of the important factors to popularize farming attended with the use of domestic animals is now almost the concensus of opinion among the agrarians of the country. This way of looking at the matter, combined with the food problem, is believed to have pushed this same question to the fore lately.

Then, dealing with the future of live-stock industry, the Live-Stock Bureau of the Ministry of Agriculture & Forestry, Tokyo, has figured centrally in preparing an approximately reliable estimate for the live stock data, 30 years hence, on the basis of the slow progress attained these 10 years.

Of the estimate statistics table for 30 years hence, the figure of milch-cows only has been altered.

As stated by Prof. Suzuki, the increase of milk outputs is highly necessary in Japan, milk occupying a high place as nutritive food.

The most economical article obtainable from live-stock for food purposes is generally accepted to be milk before meat and eggs. Therefore, from the sellers' point of view, too, the most economical food may be called milk, while, from the consumers' standpoint, the cheapest animal food available is also milk.

I do not mean to discuss whether milk, as it stands in Japan, is dear or cheap in price.

Aside from the market quotations of milk, the above stands out as an essential fact.

(To be Continued)

Tuesday - Nov. 18, 1930

Mr. K. Nakatomi.
Kwangtung Agri. Sta.
Chunchow, S. Manchuria
Peanut bulletin
varieties of peanuts

Summer Palace 11/2
Forbidden City 11/6
Shrine Temple - Peking 11/8

Left Peking 8.25 AM 11/9
Arr. Mukden 6.30 A.M. 11/10
Lv. " 1.26 PM - 11/10
Ar. Fusan 8.00 P.M - 11/10

5 5 3
16 5

G. P. O. Item No. B1-B2